The principle processes of this invention are not limited to the particular embodiments described herein. Various embodiments can employ the processes of this invention. This invention is not limited to the exact methods illustrated and described; alternative methods can be used to form the intended reflective pavement marker of this invention. Therefore, the invention can be practiced otherwise than as specifically described herein.

What is claimed is:

1. A one-piece retro reflective pavement marking sheet comprising:
integrally formed upper reflective surface and lower protective sealant sheet, said upper reflective surface having multiple, inclined reflective portions, each followed by a planar horizontally positioned reflective sheet, said inclined reflective portions each having an arcuate top, inclined or arcuate sides and two oppositely positioned inclined planar reflective faces, said planar reflective faces each having a planar outside and inside surfaces, said inside surfaces of planar reflective faces each having multiple, integrally formed micro cube corner reflective elements;
load carrying partition wall means for providing structural support and defining substantially hollowed inside surfaces of said raised reflective portions,
said planar horizontally positioned reflective sheet each having an outside planar surface and an inside surface integrally formed with multiple micro cube corner reflective elements, said load carrying partition walls integrally provide the structural support needed.
2. The one-piece retro reflective pavement marking sheet as defined in claim 1, wherein the reflective faces of said reflective portions and the planar, horizontally positioned reflective sheets can be formed having exterior surfaces with cell-like regions defined by slightly raised ridges to eliminate tire contact.
3. The one-piece retro reflective pavement marking sheet as defined in claim 1, wherein the entire base region of said upper reflective surface is backed with a flexible, protective sealant sheet, said sealant sheet is being welded onto the wedged ends of said load carrying partition walls and the apexes of said multiple cube corner reflective elements within each horizontally positioned reflective sheet areas.
4. The one-piece reflective pavement marker sheet as claimed in claim 1, wherein the raised reflective portions are of about 0.05 to 0.50 inch in height and of about 0.5 to 12 inches in width.

5. The one-piece reflective pavement marking sheet as claimed in claim 1, wherein each horizontally positioned reflective sheet longitudinally connecting each two rows of said raised reflective portions is about 0.50 to 36 inches in length, said horizontally positioned reflective sheets can have grid like raised wedges of about 0.005 to 0.05 inches to eliminate direct tire contact, said horizontally positioned reflective sheets having inside surfaces with multiple of micro cube corner reflective elements.
6. A method of forming a reflective pavement marker in the form of a continuous sheet of transparent polymeric material having a top reflective sheet and a backup sealer sheet for adhering to the pavement, said top reflective sheet divided into multiple raised reflective portions intermittently connected with planar horizontal reflective sheets, said raised reflective portions each having an exterior surface and a substantially hollowed interior surface, each exterior surface comprising of an arcuate top, two inclined sides and two planar inclined reflective faces, said reflective portions each having an interior surface integrally formed with multiple micro cube corner reflective elements within designated inside surfaces of said inclined reflective faces defined by multiple load carrying partition walls, said planar horizontal sheets each having inside surface integrally formed with multiple cube corner reflective elements sealed with said backup sealer sheet, the steps comprising:
    a. continuously passing a sheet of flexible transparent polymeric thin film of substantially continuous length over a horizontally positioned region directly above a rotationally moving cavity carriage means under slow and sequentially applied pressure and or vacuum allowing the flexible film surface preliminarily to contact and take shapes of the inner contours of the compression molding cavities, said movable cavity carriage means generally comprises of a sequentially moving belt structure that includes multiple cavity portions of compression molding apparatus;
    b. Injecting a curable optically transparent resinous material on top of a cavity segment of said rotationally moving cavity carriage means containing the preformed flexible thin film within the horizontally positioned region, thereby filling the pre-shaped cavities within the flexible film sheeting with a sufficient quantitatively scaled curable transparent resinous material and continuously skimming any access of said material thereof prior to moving to the next step;

c. passing said preformed thin film sheeting together with the transparent resinous material under the compression molding station utilizing pressure as well as heating to the synchronized compression die core segment that correspond to each moving cavity segment within the rotationally moving cavity carriage means, whereby applying sufficient pressure and heating to bond and solidify the continuously moving composite segments of said reflective pavement marking sheet with the integrally formed cube corner reflective elements together with the solidified load carrying partition wall means;

d. passing said solidified continuously formed composite reflective sheeting under a calendar roller which firmly apply the backup sealer sheeting to the solidified base surface of said continuously formed composite reflective pavement marking sheet prior to passing under the bonding station where the backup sealer sheet is welded onto the base portion of said continuously formed composite reflective sheeting; and

e. applying one component adhesive to said backup sealer sheet as well as applying a removable protective covering for said adhesive as needed.

7. The method set forth in claim 1, including the sequentially inserting and pre-forming means for allowing the transparent flexible sheeting segment to take the contour shapes of the cavities within a segment of said rotationally moving cavity carriage means, said pre-forming means may be provided with pressure, heating as well as vacuum, said pre-forming means is synchronized with all of the forward moving segments of said continuously forming process of said reflective pavement marking sheet.

8. The method set forth in claim 1, wherein the substantially continuous flexible sheeting can be pre-coated with a hard carbon, aluminum oxide or silicon dioxide film utilizing reactive sputtering or one of various chemical vapor deposition methods in a continuous means.

9. The method set forth in claim 1, wherein the compression molding apparatus may be provided with pressure, heating and cooling means, said compression molding apparatus will be synchronized in motions with all previous sub-stations.
10. The method set forth in claim 1, wherein the transparent polymeric resinous material can be selected from one of various groups of plastic materials such as acrylic ester resins, hydrocarbon resins or polycarbonates, said polymeric resinous material must be tenaciously compatible with said pre-formed flexible transparent sheeting.